NAME OF THE WORK: Improvements To Roads And Drains At Tanisandra Dasarahalli Saraipalya And Bharathnagar And Surrounding Area In Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Si No 109,110,111. Comprehensive Development And Improvements To Roads And Drains Rachenahalli And Surrounding Area In Ward No 6&7 Byatarayanapura Sub Division Package -2 (Old Annuxure-2) Go Sl No 12and 113

Third and Part Bill

Quality Control Reports

BOOK NO – 03

Scanned by CamScanner

QC ABSTRACT

NAME OF WORK: Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

SL NO	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
		Materials				
1	Cement	Fineness by dry sieving	One Test		1	1
		Finess by Air permeablity method	One Test		1	1
		Density	One Test		1	1
		Standard Consistency	One Test		1	1
		Initial Setting time	One Test		1	1
		Final Setting time	One Test		1	1
		Soundness (Le Chatelier's Method)	One Test		1	1
		Compressive Strength	One Test		1	1
2	Coarse aggregate(40 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
3	Fine aggregate	SIEVE ANALYSIS	One Test		1	1
		Water Absorption	One Test		1	1
		Specific Gravity	One Test		1	1
		Material finer than 75 micron	One Test		1	1
4	Cement Concrete Pavemet (M30)	Compressive Strength(7days and 28days)	15 set /550-600 cum	575.75	30	30
5	WMM	Sieve Analysis	One Test		1	1
		Impact Value	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
6	DBM	SIEVE ANALYSIS	One Test		1	1
		STRIPPING VALUE	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		IMPACT VALUE	One Test		1	1
		Specific gravity	One Test		1	1
		Water Absorption	One Test		1	1
		Marshal Stability	One Test		1	1
		Marshal flow	One Test		1	1
		Percent air Voids	One Test		1	1
		Percent Voids in mineral Aggregate	One Test		1	1
		Percent Voids filled with Bitumen	One Test		1	1
		Density	One Test		1	1
		Gradation	One Test		1	1

Scanned by CamScanner

7	BC	SIEVE ANALYSIS	One Test		1	1
		STRIPPING VALUE	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		IMPACT VALUE	One Test		1	1
		Specific gravity	One Test		1	1
		Water Absorption	One Test		1	1
		Marshal Stability	One Test		1	1
		Marshal flow	One Test		1	1
		Percent air Voids	One Test		1	1
		Percent Voids in mineral	One Test		1	1
		Percent Voids filled with Bitumen	One Test		1	1
		Density	One Test		1	1
		Gradation	One Test		1	1
8	BITUMEN	Ductility	One Test		1	1
		Softening Point	One Test		1	1
		Penetration	One Test		1	1
		Flash Point	One Test		1	1
		Fire Point	One Test		1	1
9	TACK COAT	Rate of spread	One Test		1	1

Scanned by CamScanner

WARD NO-06

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	CP-RW-2023-01-14-13 Date: 29-06-22
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer's Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	27-06-22
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification . IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 (RA 2021) DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4,4 IS 4031 Part 2, (RA 2018) Determination of Fineness by Blaine Air Permeability IS 4031 Part 3, (RA 2019) Determination of Soundness, Clause 5, Clause 6 IS 4031 Part 4, (RA 2019) Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, (RA 2019) Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11, (RA 2019)DETERMINATION OF DENSITY , Clause 6
Date of test	:	27-06-22
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	2.1	_
2	Finess by Air permeablity method (m^2/kg,Min)	284.5	225m^2/kg, Min
3	Density (gm/cc)	3.13	_
4	Standard Consistency (%)	28%	Not specified
5	Initial Setting time	180 minutes	Not less than 30 minutes
6	Final Setting time	260 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1mm	Not more than 10 mm

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	CP-RW-2023-01-14-13 **Date: 25-07-22**
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer's Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	27-06-22
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, (RA 2019) Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, (RA 2019) Determination of Compressive Strength, Clause 6
Date of test	:	27-06-22
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Compressive Strength

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	3 Days	28.0N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.5N/mm^2	Not less than 37 N/mm^2
3	28 Days	59.0N/mm^2	Not less than 53 N/mm^2

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-RW-2023-01-14-13** **Date: 30-06-22**
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer's Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	27-06-22
Sample Type	:	40mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2021 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	27-06-22

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : 15000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	214	214	1.4	98.6	90-100
3	20 mm	7254	7468	49.8	50.2	30-70
4	10 mm	4442	11910	79.4	20.6	10-35
5	4.75 mm	2685	14595	97.3	2.7	0-5
6	Pan	405	15000	100.0	0	---

CIVIL Pro Sig..... Date..... BANGALORE

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-RW-2023-01-14-13 Date: 30-06-22

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	10.6	Combined Flakiness & Elongation Index Shall not Exceed 40% for Unerushed & Crushed Aggregate
2	Elongation Index(%)	12.3	
3	Specific Gravity	2.64	–
4	Bulk Density(Loose) (Kg/l)	1.49	–
5	Bulk Density(Compacted) (Kg/l)	1.52	–
6	Water Absorption(%)	0.17	–

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID	:	**CP-RW-2023-01-14-13** **Date: 30-06-22**
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer's Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	27-06-22
Sample Type	:	Fine Aggregate
Reference to BIS codes	:	IS 383 : 2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1, 3) RA2012 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
Date of test	:	27-06-22
Total weight taken	:	1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	26	26	2.6	97.4	90-100	90-100	90-100	95-100
3	2.36 mm	51	77	7.7	92.3	60-95	75-100	85-100	95-100
4	1.18 mm	238	315	31.5	68.5	30-70	55-90	75-100	90-100
5	600 micron	201	516	51.6	48.4	15-34	35-59	60-79	80-100
6	300 micron	204	720	72.0	28.0	5-20	8-30	12-40	15-50
7	150 micron	192	912	91.2	8.8	0-10	0-10	0-10	0-15
8	Pan	88	1000	100.0	0.0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

CIVIL PRO Sig..... Date..... BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-RW-2023-01-14-13** **Date: 30-06-22**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.51	–
2	Specific Gravity	2.58	–
3	Material finer than 75 micron(%)	6.7	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2023-01-14-13** **Date: 08/07/2022**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 08/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	151.64 X 149.67 X 149.90	22695	8.424	574.2	25.3	25.4
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	151.38 X 151.00 X 151.29	22858	8.478	595.5	26.1	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	151.06 X 150.93 X 149.22	22800	8.826	563.3	24.7	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-01-14-13 **Date: 29/07/2022**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 29/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen	Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)	(Sq.mm)	(kg)	(KN)	(N/mm^2)	(N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	149.55 X 151.55 X 150.75	22664	8.520	758.6	33.5	33.2
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	149.59 X 150.98 X 149.53	22586	8.914	739.4	32.7	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	149.20 X 151.81 X 150.37	22650	8.228	753.2	33.3	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2023-01-14-13** **Date: 08/07/2022**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Sanaipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 08/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	149.85 X 150.45 X 150.56	22545	8.274	579.6	25.7	25.5
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	150.14 X 149.22 X 149.26	22404	8.925	592.9	26.5	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	150.51 X 151.15 X 151.50	22750	8.625	551.1	24.2	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-01-14-13 **Date: 29/07/2022**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 29/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	151.72 X 151.97 X 151.78	23057	8.176	775.5	33.6	33.2
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	151.07 X 151.93 X 149.18	22952	8.744	738.5	32.2	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	149.12 X 150.60 X 151.04	22458	9.049	757.0	33.7	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-01-14-13 **Date: 08/07/2022**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 08/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	151.27 X 149.09 X 151.94	22553	8.110	565.2	25.1	25.1
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	150.59 X 151.82 X 149.33	22863	8.135	599.7	26.2	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	149.91 X 150.78 X 151.22	22605	8.856	544.2	24.1	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-01-14-13 **Date: 29/07/2022**

Project Name : Package-3. Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 29/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	150.80 X 150.84 X 151.51	22747	8.944	758.7	33.4	33.0
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	149.59 X 150.67 X 149.63	22538	8.616	731.1	32.4	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	150.61 X 151.17 X 151.98	22767	8.738	753.1	33.1	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-01-14-13 **Date: 08/07/2022**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 08/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	151.64 X 149.83 X 150.61	22721	9.006	589.3	25.9	25.7
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	151.45 X 150.71 X 149.68	22824	8.152	609.0	26.7	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	151.71 X 149.28 X 149.03	22647	8.262	551.3	24.3	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2023-01-14-13** **Date: 29/07/2022**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 29/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	150.06 X 150.89 X 151.12	22643	8.238	749.2	33.1	33.1
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	150.89 X 151.40 X 151.51	22844	8.698	749.1	32.8	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	149.44 X 149.89 X 149.47	22400	8.235	750.5	33.5	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-01-14-13 **Date: 08/07/2022**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109.110.111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 08/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	151.28 X 149.06 X 149.21	22551	8.330	564.0	25.0	25.4
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	151.11 X 150.49 X 150.06	22740	8.796	607.6	26.7	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	08/07/2022	149.20 X 149.75 X 150.22	22343	8.584	547.8	24.5	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ದ್ವಾದರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-01-14-13 **Date: 29/07/2022**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Customer ID : Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 29/07/2022

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	151.27 X 151.79 X 151.85	22962	8.815	759.5	33.1	33.0
2	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	150.92 X 150.24 X 150.48	22674	8.939	728.6	32.1	
3	Cement Concrete Pavement -Sri Sappalamma Devi Temple Road (W0546)	M30	01/07/2022	29/07/2022	149.77 X 152.00 X 149.99	22765	8.474	767.0	33.7	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report***

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 30-06-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 28-06-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 28-06-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	320	320	2.9	97.1	95-100
22.4	2245	2565	23.3	76.7	60-80
11.2	2186	4751	43.2	56.8	40-60
4.75	2246	6997	63.6	36.4	25-40
2.36	1619	8616	78.3	21.7	15-30
0.6	625	9241	84.0	16.0	8-22
0.075	1321	10562	96.0	4.0	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯವರರವರ
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಜ್ಞಾನಭಾರತಿನಗರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಜ್ಞಾನಭಾರತಿನಗರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-14

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com
HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 30-06-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 28-06-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 28-06-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	295	295	2.7	97.3	95-100
22.4	2238	2533	23.0	77.0	60-80
11.2	2153	4686	42.6	57.4	40-60
4.75	2241	6927	63.0	37.0	25-40
2.36	1352	8279	75.3	24.7	15-30
0.6	602	8881	80.7	19.3	8-22
0.075	1315	10196	92.7	7.3	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
P.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 30-06-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 28-06-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 28-06-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	269	269	2.4	97.6	95-100
22.4	2239	2508	22.8	77.2	60-80
11.2	2165	4673	42.5	57.5	40-60
4.75	2248	6921	62.9	37.1	25-40
2.36	1625	8546	77.7	22.3	15-30
0.6	625	9171	83.4	16.6	8-22
0.075	1335	10506	95.5	4.5	0-5

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 30-06-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 28-06-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 28-06-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	312	312	2.8	97.2	95-100
22.4	2259	2571	23.4	76.6	60-80
11.2	2179	4750	43.2	56.8	40-60
4.75	2251	7001	63.6	36.4	25-40
2.36	1621	8622	78.4	21.6	15-30
0.6	623	9245	84.0	16.0	8-22
0.075	1331	10576	96.1	3.9	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಆಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ

CIVIL Pro
Sig.....
Date.....
BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಆಯುಕ್ತರ ಆಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	**CP-RW-2023-01-14-13**	**Date: 30-06-22**
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.	
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013	
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22	
Date of Receipt	:	28-06-22	
Type of Mix	:	WMM (Wet Mix Macadam)	
Date of test	:	28-06-22	
Oven Dry Weight	:	11000 Grams	

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	293	293	2.7	97.3	95-100
22.4	2219	2512	22.8	77.2	60-80
11.2	2158	4670	42.5	57.5	40-60
4.75	2251	6921	62.9	37.1	25-40
2.36	1625	8546	77.7	22.3	15-30
0.6	610	9156	83.2	16.8	8-22
0.075	1368	10524	95.7	4.3	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧೀಕ್ಷಕಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ರ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro
Sig.....
Date.....
BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ರ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ ಬಿ ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID	:	**CP-RW-2023-01-14-13** **Date: 30-06-22**
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	28-06-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	28-06-22

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.2	300.2
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	70.0	72.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	229.7	227.3
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.5	0.9
5	Aggregate impact value	(B/A)*100	23.3	24.0
6	Aggregate impact value (Mean of two tests)	Pecentage	23.7	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	CP-RW-2023-01-14-13 Date: 30-06-22
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	28-06-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	28-06-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	11.9%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	15.5%	
Combined Flakiness and Elongation Index for WMM	27.4%	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯರವರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರ
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-೨೬

Scanned by CamScanner

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Date: 30-06-22

Lab ID	:	CP-RW-2023-01-14-13
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	28-06-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	28-06-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	9.9%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	17.5%	
Combined Flakiness and Elongation Index for WMM	27.4%	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 02-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 30-06-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 30-06-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	216	216	2.0	98.0	95-100
22.4	2198	2414	21.9	78.1	60-80
11.2	2109	4523	41.1	58.9	40-60
4.75	2588	7111	64.6	35.4	25-40
2.36	1569	8680	78.9	21.1	15-30
0.6	598	9278	84.3	15.7	8-22
0.075	1562	10840	98.5	1.5	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR WMM

Date: 02-07-22

Lab ID : CP-RW-2023-01-14-13

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 30-06-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 30-06-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	302	302	2.7	97.3	95-100
22.4	2347	2649	24.1	75.9	60-80
11.2	2088	4737	43.1	56.9	40-60
4.75	2218	6955	63.2	36.8	25-40
2.36	1675	8630	78.5	21.5	15-30
0.6	642	9272	84.3	15.7	8-22
0.075	1485	10757	97.8	2.2	0-5

* The results obtained are satisfactory as per standard requirements.

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ರಾಮಚಂದ್ರಾಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಾಮಚಂದ್ರಾಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-21

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	CP-RW-2023-01-14-13 Date: 02-07-22
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	30-06-22
Type of Mix	:	WMM (Wet Mix Macadam)
Date of test	:	30-06-22
Oven Dry Weight	:	11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	298	298	2.7	97.3	95-100
22.4	2072	2370	21.5	78.5	60-80
11.2	2349	4719	42.9	57.1	40-60
4.75	2217	6936	63.1	36.9	25-40
2.36	1754	8690	79.0	21.0	15-30
0.6	228	8918	81.1	18.9	8-22
0.075	1600	10518	95.6	4.4	0-5

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Repon

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	**CP-RW-2023-01-14-13** **Date: 02-07-22**
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	30-06-22
Type of Mix	:	WMM (Wet Mix Macadam)
Date of test	:	30-06-22
Oven Dry Weight	:	11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	232	232	2.1	97.9	95-100
22.4	2133	2365	21.5	78.5	60-80
11.2	2365	4730	43.0	57.0	40-60
4.75	1898	6628	60.3	39.7	25-40
2.36	1886	8514	77.4	22.6	15-30
0.6	255	8769	79.7	20.3	8-22
0.075	1974	10743	97.7	2.3	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧೀಕ್ಷಕರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

End of Report

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR WMM

Lab ID : **CP-RW-2023-01-14-13** **Date: 02-07-22**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 30-06-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 30-06-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	12	12	0.1	99.9	95-100
22.4	2287	2299	20.9	79.1	60-80
11.2	2315	4614	41.9	58.1	40-60
4.75	2065	6679	60.7	39.3	25-40
2.36	1974	8653	78.7	21.3	15-30
0.6	654	9307	84.6	15.4	8-22
0.075	1462	10769	97.9	2.1	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬ.ಜ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬ.ಬ.ಮ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID	:	CP-RW-2023-01-14-13 Date: 02-07-22
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	30-06-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	30-06-22

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	303.1	303.1
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.9	74.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	228.5	228.4
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.7	0.7
5	Aggregate impact value	(B/A)*100	24.4	24.4
6	Aggregate impact value (Mean of two tests)	Pecentage	24.4	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

Scanned by CamScanner

Certificate No.: TC-5548

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2023-01-14-13**
Project Name	:	Package-3, Includes 5 Works **Date: 02-07-22** Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	30-06-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	30-06-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	8.5%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	13.5%	
Combined Flakiness and Elongation Index for WMM	22.0%	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಆಧಿಕಾರಿಯವರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-26

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	CP-RW-2023-01-14-13 Date: 02-07-22
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	30-06-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	30-06-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	13.1%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.6%	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ರ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 04-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 02-07-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 02-07-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	223	223	2.0	98.0	95-100
22.4	2164	2387	21.7	78.3	60-80
11.2	2379	4766	43.3	56.7	40-60
4.75	2451	7217	65.6	34.4	25-40
2.36	1865	9082	82.6	17.4	15-30
0.6	623	9705	88.2	11.8	8-22
0.075	1138	10843	98.6	1.4	0-5

* The results obtained are satisfactory as per standard requirements.

ಕಾರ್ಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Repon

ಕಾರ್ಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 04-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 02-07-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 02-07-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	261	261	2.4	97.6	95-100
22.4	2241	2502	22.7	77.3	60-80
11.2	2175	4677	42.5	57.5	40-60
4.75	2237	6914	62.9	37.1	25-40
2.36	1621	8535	77.6	22.4	15-30
0.6	654	9189	83.5	16.5	8-22
0.075	1350	10539	95.8	4.2	0-5

* The results obtained are satisfactory as per standard requirements.

ಕಿರಿಯ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
K.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-೨೬

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 04-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 02-07-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 02-07-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	302	302	2.7	97.3	95-100
22.4	2247	2549	23.2	76.8	60-80
11.2	2165	4714	42.9	57.1	40-60
4.75	2243	6957	63.2	36.8	25-40
2.36	1632	8589	78.1	21.9	15-30
0.6	678	9267	84.2	15.8	8-22
0.075	1258	10525	95.7	4.3	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 04-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 02-07-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 02-07-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	216	216	2.0	98.0	95-100
22.4	2198	2414	21.9	78.1	60-80
11.2	2109	4523	41.1	58.9	40-60
4.75	2588	7111	64.6	35.4	25-40
2.36	1569	8680	78.9	21.1	15-30
0.6	598	9278	84.3	15.7	8-22
0.075	1562	10840	98.5	1.5	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬ.ಬ.ಪಾ.ಪ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬ.ಬ.ಪಾ.ಪ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 04-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 02-07-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 02-07-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	232	232	2.1	97.9	95-100
22.4	2133	2365	21.5	78.5	60-80
11.2	2365	4730	43.0	57.0	40-60
4.75	1951	6681	60.7	39.3	25-40
2.36	1886	8567	77.9	22.1	15-30
0.6	955	9522	86.6	13.4	8-22
0.075	1199	10721	97.5	2.5	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID : CP-RW-2023-01-14-13 Date: 04-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 02-07-22

Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)

Date of test : 02-07-22

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	302.5	302.5
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	75.1	72.8
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	227.0	229.1
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.4	0.6
5	Aggregate impact value	(B/A)*100	24.8	24.1
6	Aggregate impact value (Mean of two tests)	Pecentage	24.4	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	CP-RW-2023-01-14-13 **Date: 04-07-22**
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	02-07-22
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	02-07-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	11.3%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	10.2%	
Combined Flakiness and Elongation Index for WMM	21.5%	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID : CP-RW-2023-01-14-13 **Date: 04-07-22**

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 02-07-22

Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)

Date of test : 02-07-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	13.2%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.7%	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 06-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 04-07-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	320	320	2.9	97.1	95-100
22.4	2135	2455	22.3	77.7	60-80
11.2	2165	4620	42.0	58.0	40-60
4.75	2234	6854	62.3	37.7	25-40
2.36	1639	8493	77.2	22.8	15-30
0.6	632	9125	83.0	17.0	8-22
0.075	1415	10540	95.8	4.2	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 06-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 04-07-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	325	325	3.0	97.0	95-100
22.4	2145	2470	22.5	77.5	60-80
11.2	2152	4622	42.0	58.0	40-60
4.75	2248	6870	62.5	37.5	25-40
2.36	1642	8512	77.4	22.6	15-30
0.6	630	9142	83.1	16.9	8-22
0.075	1420	10562	96.0	4.0	0-5

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	CP-RW-2023-01-14-13 Date: 06-07-22
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	04-07-22
Type of Mix	:	WMM (Wet Mix Macadam)
Date of test	:	04-07-22
Oven Dry Weight	:	11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	336	336	3.1	96.9	95-100
22.4	2156	2492	22.7	77.3	60-80
11.2	2163	4655	42.3	57.7	40-60
4.75	2285	6940	63.1	36.9	25-40
2.36	1689	8629	78.4	21.6	15-30
0.6	654	9283	84.4	15.6	8-22
0.075	1465	10748	97.7	2.3	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ರ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ರ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com
HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 06-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathinagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 04-07-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	325	325	3.0	97.0	95-100
22.4	2196	2521	22.9	77.1	60-80
11.2	2186	4707	42.8	57.2	40-60
4.75	2295	7002	63.7	36.3	25-40
2.36	1675	8677	78.9	21.1	15-30
0.6	635	9312	84.7	15.3	8-22
0.075	1457	10769	97.9	2.1	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ.

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2023-01-14-13 Date: 06-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Type of Mix : WMM (Wet Mix Macadam)

Date of test : 04-07-22

Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	223	223	2.0	98.0	95-100
22.4	2164	2387	21.7	78.3	60-80
11.2	2379	4766	43.3	56.7	40-60
4.75	2451	7217	65.6	34.4	25-40
2.36	1865	9082	82.6	17.4	15-30
0.6	623	9705	88.2	11.8	8-22
0.075	1138	10843	98.6	1.4	0-5

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-26

Scanned by CamScanner

TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID : CP-RW-2023-01-14-13 Date: 06-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)

Date of test : 04-07-22

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.2	300.2
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.9	74.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	225.9	225.8
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.4	0.4
5	Aggregate impact value	(B/A)*100	24.6	24.7
6	Aggregate impact value (Mean of two tests)	Pecentage	24.6	

* The results obtained are satisfactory as per standard requirements.

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com
HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID : CP-RW-2023-01-14-13 Date: 06-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)

Date of test : 04-07-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.8%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.3%	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ದ್ಯಾವರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ದ್ಯಾವರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-೨೫

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID : CP-RW-2023-01-14-13 Date: 06-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 04-07-22

Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)

Date of test : 04-07-22

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.9%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.6%	
Combined Flakiness and Elongation Index for WMM	25.5%	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID : CP-RW-2023-01-14-14

Date: 09-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111.
Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 07-07-22

Sample Type : Bitumen

Reference to BIS codes : IS: 1201-2021, IS: 1202-1220(1978) (Reaffirmed-2019)

Date of test : 07-07-22

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	49	60 to 70
2	Softening Point, °C	52.6	Min. 40°C
3	Ductility, cm	99	Min. 75cm
4	Flash point, °C	280	Min. 220°C
	Fire point, °C	305	

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಸಿವಿಲ್ ಪ್ರೊ ... ನಮರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-೨೬

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by CamScanner

TEST RESULTS OF GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID : CP-RW-2023-01-14-13
Date: 16-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 14-07-22

Type of Mix : DBM-Plant (Dense Bituminous Macadam)

Date of test : 14-07-22

Weight of Sample : 5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10 (grading -2)
37.5	0	0	0	100	100
26.5	255	255	5.10	94.90	90-100
19	345	600	12.00	88.00	71-95
13.2	452	1052	21.04	78.96	56-80
4.75	1762	2814	56.28	43.72	38-54
2.36	425	3239	64.78	35.22	28-42
0.3	1342	4581	91.62	8.38	7-21
0.075	265	4846	96.92	3.08	2-8
PAN	200	5046	0.00	0	0

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

CIVIL PRO
AN ISO 9001 : 2008 COMPANY & ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR DENSE BITUMINOUS MACADAM

Lab ID : CP-RW-2023-01-14-13 Date: 17-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 14-07-22

Type of Mix : DBM (Dense Bituminous Macadam)

Date of test : 14-07-22

Table 500-6 : Physical Requirements fo Coarse Aggregate for Dense Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	8.0	Combined Flakiness & Elongation Index for DBM is Maximum 35%	IS:2386 Part I
	Elongation Index	12.0		
Strength	Aggregate Impact Value	21.0	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.58	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.38	Maximum 2%	IS:2386 Part III

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರ
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by CamScanner

TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	CP-RW-2023-01-14-13 Date: 17-07-22
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	14-07-22
Type of Mix	:	DBM (Dense Bituminous Mecadam)
Date of test	:	14-07-22

The results of the tests conducted on the Dense Bituminous Macadam mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.29	11.82	9KN(Min)
2	Marshal flow at 60°C, mm	3.54	3.87	2-4
3	Percent air Voids	4.56	4.17	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.54	14.76	13-15
5	Percent Voids filled with Bitumen(VFB %)	68.98	70.28	65-75
6	Density, g/cc	2.42	2.40	–

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

Certificate No.: TC-5548

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID : CP-RW-2023-01-14-13

Date: 17-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 14-07-22

Type of Mix : DBM(Dense Bitumnous Macadam)

Date of test : 14-07-22

Type of Binder : 60/70

% of Binder Used : 5.0%

Weight of Aggregate : 200.0 gm

Weight of Binder : 10.0 gm

Temperature of water bath : 40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	98.2	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಆಧೀಕ್ಷಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1

****End of Report****

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

Scanned by CamScanner

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR DBM (IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	CP-RW-2023-01-14-17 Date: 21-07-22
Project Name	:	Package-3, Includes 5 Works Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.
Agency	:	M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013
Customer Reference	:	BBMP/EE/BTP/WO/02/2021-22
Date of Receipt	:	20-07-22
Type of Mix	:	DBM (Dense Bituminous Macadam) - Bhuvaneshwar Nagar 1st Main Road
Date of test	:	20-07-22

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	475	476
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	5.0	4.8
4	Average percentage	%	4.9	

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

ಸಹಾಯಕ ಅಧಿಯಂತರರು ಮಲ್ಲೇಶ್ವರಂ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಮಲ್ಲೇಶ್ವರಂ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-3

Scanned by CamScanner

Lab ID : CP-RW-2023-01-14-17 Date: 21-07-22

AFTER EXTRACTION(Trail-1)

Weight of Sample(gm) : 475

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0	100.0	100
26.5	14.4	14.4	3.03	97.0	90-100
19	24	38.4	8.08	91.9	71-95
13.2	120	158.4	33.35	66.7	56-80
4.75	96	254.4	53.56	46.4	38-54
2.36	80	334.4	70.40	29.6	28-42
0.3	62.4	396.8	83.54	16.5	7-21
0.075	52.8	449.6	94.65	5.3	2-8

AFTER EXTRACTION(Trail-2)

Weight of Sample(gm) : 476

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0	100.0	100
26.5	14.8	14.8	3.11	96.9	90-100
19	24	38.8	8.15	91.8	71-95
13.2	120	158.8	33.36	66.6	56-80
4.75	96	254.8	53.53	46.5	38-54
2.36	78	332.8	69.92	30.1	28-42
0.3	62.4	395.2	83.03	17.0	7-21
0.075	52.8	448	94.12	5.9	2-8

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ರಾಜರಾಯನಪುರ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R.KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 2/2
End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ರಾಜರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

Scanned by CamScanner

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR DBM (IS 2386:(Part 1) 1963 (RA2011)

Lab ID : CP-RW-2023-01-14-17 Date: 21-07-22

Project Name : Package-3, Includes 5 Works
Improvements to Roads and Drains at Thanisandra Dasarahalli Saraipalya and Bharathnagara and Surrounding Area in Ward No 06 Byatarayanapura Sub Division Package-3 (Old Annuxure-2) Go Sl No 109,110,111. Comprehensive Development and Improvements to Roads and Drains Rachenahalli and Surrounding Area in Ward No 6 and 7 Byatarayanapura Sub Division Package-2 (Old Annuxure) Go Sl No 112 and 113.

Agency : M/s. Ram and Company, Prop. Sri C R Girish, No:12, Patel Pillegowda Layout, Ramachandrapura, Bangalore-560013

Customer Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 20-07-22

Type of Mix : DBM (Dense Bituminous Macadam) - Sri Venkateshwara Nilaya

Date of test : 20-07-22

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	475	476
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	5.3	4.8
4	Average percentage	%	5.0	

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
P.KARTHIK RECHAN
Authorized Signatory
Quality Manager

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com
HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | ENVIRONMENTAL
WATER TESTING | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES

Scanned by CamScanner

Lab ID : CP-RW-2023-01-14-17 Date: 21-07-22

AFTER EXTRACTION(Trail-1)

Weight of Sample(gm) : 475

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0	100.0	100
26.5	14.4	14.4	3.03	97.0	90-100
19	24	38.4	8.08	91.9	71-95
13.2	120	158.4	33.35	66.7	56-80
4.75	96	254.4	53.56	46.4	38-54
2.36	80	334.4	70.40	29.6	28-42
0.3	62.4	396.8	83.54	16.5	7-21
0.075	52.8	449.6	94.65	5.3	2-8

AFTER EXTRACTION(Trail-2)

Weight of Sample(gm) : 476

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0	100.0	100
26.5	14.8	14.8	3.11	96.9	90-100
19	24	38.8	8.15	91.8	71-95
13.2	120	158.8	33.36	66.6	56-80
4.75	96	254.8	53.53	46.5	38-54
2.36	78	332.8	69.92	30.1	28-42
0.3	62.4	395.2	83.03	17.0	7-21
0.075	52.8	448	94.12	5.9	2-8

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ ಜ್ಞಾನಭಾರತಿ ಉಪ ವಿಭಾಗ

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

ಸಹಾಯಕ ಕಾರ್ಯ ಪಾಲಕ ಅಭಿಯಂತರರು
ಜ್ಞಾನಭಾರತಿ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Scanned by CamScanner